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For Release:

UPON RELEASE OF
PRESIDENT'S BUDGET
MESSAGE, 10:00 A.M.
JANUARY 28, 1980

BACKGROUND MATERIAL

NASA FY 1981 BUDGET BRIEFING

HOLD FOR RELEASE AT 10:00 A.M., EST, MONDAY, JANUARY 28, 1980

NOTE: This statement relates to the Fiscal Year 1981 Budget and is subject to the same conditions. There should be no premature release of this statement nor should any of its contents be paraphrased or alluded to in earlier stories. There is a total embargo on the Budget until 10:00 A.M., EST, January 28, 1980, which includes any and all references to any material in the Budget Appendix, or supporting statements.

(NASA-News-Release-80-13) BACKGROUND
MATERIAL, NASA FY 1981 BUDGET BRIEFING
(National Aeronautics and Space
Administration) 10 p

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

BUDGET SUMMARY
(Thousands of Dollars)

<u>BUDGET PLAN</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
Research and development.....	3,477,200	4,107,500 ^{a/}	4,569,500
Construction of facilities...	147,500	156,100	120,000
Research and program management.....	<u>933,808</u>	<u>1,006,186^{b/}</u>	<u>1,047,154</u>
TOTAL BUDGET PLAN.....	<u>4,558,508</u>	<u>5,269,786</u>	<u>5,736,654</u>
OUTLAYS.....	4,196,472	5,012,600	5,439,700

a/ Includes proposed supplemental of \$300,000,000 for the Space Shuttle.

b/ Includes proposed supplemental of \$46,286,000 to cover revised salary rates implemented in October 1979.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RESEARCH AND DEVELOPMENT PROGRAMS

BUDGET PLAN
(Thousands of Dollars)

<u>Cognizant Office and Program</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
<u>SPACE TRANSPORTATION SYSTEMS</u>	<u>2,011,600</u>	<u>2,403,300</u>	<u>2,738,200</u>
Space Shuttle.....	1,638,300	1,886,000 ^{a/}	1,873,000
Space flight operations.....	299,700	446,600	809,500
Expendable launch vehicles.....	73,600	70,700	55,700
<u>SPACE SCIENCE</u>	<u>505,400</u>	<u>600,800</u>	<u>668,000</u>
Physics and astronomy.....	282,900	337,100	438,700
Planetary exploration.....	182,400	219,900	179,600
Life sciences.....	40,100	43,800	49,700
<u>SPACE AND TERRESTRIAL APPLICATIONS</u>	<u>283,900</u>	<u>343,900</u>	<u>394,800</u>
Space applications.....	274,800	331,800	381,700
Technology utilization.....	9,100	12,100	13,100
<u>AERONAUTICS AND SPACE TECHNOLOGY</u>	<u>376,400</u>	<u>427,100</u>	<u>409,500</u>
Aeronautical research and technology..	264,100	308,300	290,300
Space research and technology.....	107,300	115,800	115,200
Energy technology.....	5,000	3,000	4,000
<u>SPACE TRACKING AND DATA SYSTEMS</u>	<u>299,900</u>	<u>332,400</u>	<u>359,000</u>
<u>TOTAL.....</u>	<u><u>3,477,200</u></u>	<u><u>4,107,500</u></u>	<u><u>4,569,500</u></u>

a/ Includes proposed supplemental of \$300,000,000 for the Space Shuttle.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SPACE TRANSPORTATION SYSTEMS

BUDGET PLAN
(Thousands of Dollars)

	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
<u>SPACE SHUTTLE</u>	<u>1,638,300</u>	<u>1,886,000^{a/}</u>	<u>1,873,000</u>
Design, development, test and evaluation.....	(1,270,300)	(1,030,500)	(683,000)
Orbiter.....	727,800	560,900	320,900
Main engine.....	172,700	140,600	145,700
External tanks.....	104,800	79,400	48,000
Solid rocket boosters.....	115,400	61,200	14,000
Launch and landing.....	149,600	188,400	154,400
Changes/systems upgrading.....	(---)	(100,000)	(150,000)
Production.....	(368,000)	(755,500)	(1,040,000)
Orbiter.....	264,500	572,600	768,200
Main engine.....	75,500	123,600	121,500
Launch and landing.....	7,000	16,400	40,400
Spares and equipment.....	21,000	42,900	109,900
<u>SPACE FLIGHT OPERATIONS</u>	<u>299,700</u>	<u>446,600</u>	<u>809,500</u>
Space transportation system operations capability development.....	64,500	54,100	89,000
Spacelab.....	26,700	58,800	151,700
Space transportation system operations.	24,300	148,100	374,500
Development, test and mission support..	177,200	172,600	183,500
Advanced programs.....	7,000	13,000	10,800
<u>EXPENDABLE LAUNCH VEHICLES</u>	<u>73,600</u>	<u>70,700</u>	<u>55,700</u>
Scout.....	10,600	5,100	2,200
Centaur.....	17,300	18,300	5,600
Delta.....	45,700	46,100	47,900
Atlas-F.....	---	1,200	---
<u>TOTAL SPACE TRANSPORTATION SYSTEMS...</u>	<u>2,011,600</u>	<u>2,403,300</u>	<u>2,738,200</u>

a/ Includes proposed supplemental of \$300,000,000.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SPACE SCIENCE

BUDGET PLAN
(Thousands of Dollars)

	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
<u>PHYSICS AND ASTRONOMY</u>	<u>282,900</u>	<u>337,100</u>	<u>438,700</u>
High energy astronomy observatories development.....	10,647	2,100	---
Solar maximum mission development.....	16,700	3,100	---
Space telescope development.....	79,200	112,700	119,300
International solar polar mission development.....	12,500	47,900	82,600
Gamma ray observatory development.....	---	---	19,100
Shuttle/Spacelab payload development and mission management.....	34,900	40,900	72,100
Explorer development.....	31,288	32,300	33,000
Mission operations and data analysis...	25,453	37,100	38,900
Research and analysis.....	44,005	34,100	42,800
Suborbital programs.....	28,207	26,900	30,900
<u>PLANETARY EXPLORATION</u>	<u>182,400</u>	<u>219,900</u>	<u>179,600</u>
Galileo development.....	78,700	116,100	63,100
Mission operations and data analysis...	59,300	58,800	64,800
Research and analysis.....	44,400	45,000	51,700
<u>LIFE SCIENCES</u>	<u>40,100</u>	<u>43,800</u>	<u>49,700</u>
Life sciences flight experiments.....	15,700	16,600	19,200
Research and analysis.....	24,400	27,200	30,500
<u>TOTAL SPACE SCIENCE.....</u>	<u>505,400</u>	<u>600,800</u>	<u>668,000</u>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SPACE AND TERRESTRIAL APPLICATIONS

BUDGET PLAN
(Thousands of Dollars)

	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
<u>SPACE APPLICATIONS</u>	<u>274,800</u>	<u>331,800</u>	<u>381,700</u>
<u>RESOURCE OBSERVATIONS</u>	<u>139,400</u>	<u>145,203</u>	<u>162,300</u>
Landsat-D.....	97,500	98,663	64,300
Operational land observing system.....	---	---	16,000
Magnetic field satellite.....	3,900	1,600	500
AgRISTARS.....	---	16,000	33,200
Shuttle/Spacelab payload development..	6,200	1,850	2,000
Applied research and data analysis and related activities.....	30,800	27,090	46,300
Completed projects.....	1,000	---	---
<u>ENVIRONMENTAL OBSERVATIONS</u>	<u>67,750</u>	<u>109,470</u>	<u>137,600</u>
Earth radiation budget experiment.....	7,000	17,000	29,000
Halogen occultation experiment.....	3,600	8,000	6,000
National oceanic satellite system.....	---	---	5,800
Shuttle/Spacelab payload development..	7,750	9,600	8,200
Advanced research and data analysis and related activities.....	41,076	74,370	88,600
Completed projects.....	8,324	500	---
<u>APPLICATIONS SYSTEMS</u>	<u>13,950</u>	<u>24,547</u>	<u>18,100</u>
<u>TECHNOLOGY TRANSFER</u>	<u>10,700</u>	<u>10,087</u>	<u>12,500</u>
<u>MATERIALS PROCESSING IN SPACE</u>	<u>20,400</u>	<u>19,768</u>	<u>22,200</u>
Space processing applications			
rocket project.....	3,600	2,100	---
Shuttle/Spacelab payload development..	11,950	11,218	10,500
Applied research and data analysis....	4,850	6,450	11,700
<u>SPACE COMMUNICATIONS</u>	<u>22,600</u>	<u>22,725</u>	<u>29,000</u>
Search and rescue.....	8,000	5,000	2,300
Shuttle/Spacelab payload development..	1,200	1,660	---
Applied research and data analysis and related activities.....	13,400	16,065	26,700
<u>TECHNOLOGY UTILIZATION</u>	<u>9,100</u>	<u>12,100</u>	<u>13,100</u>
<u>TOTAL SPACE AND TERRESTRIAL APPLICATIONS</u>	<u>283,900</u>	<u>343,900</u>	<u>394,800</u>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AERONAUTICS AND SPACE TECHNOLOGY

BUDGET PLAN
(Thousands of Dollars)

	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
<u>AERONAUTICAL RESEARCH AND TECHNOLOGY</u>	<u>264,100</u>	<u>308,300</u>	<u>290,300</u>
Research and technology base.....	109,700	119,000	131,100
Systems technology programs.....	154,400	189,300	159,200
(Aircraft energy efficiency technology included in systems technology).....	(97,400)	(116,100)	(85,000)
<u>SPACE RESEARCH AND TECHNOLOGY</u>	<u>107,300</u>	<u>115,800</u>	<u>115,200</u>
Research and technology base.....	86,277	99,785	103,400
Systems technology programs.....	12,023	11,015	9,700
Standards and practices.....	9,000	5,000	2,100
<u>ENERGY TECHNOLOGY</u>	<u>5,000</u>	<u>3,000</u>	<u>4,000</u>
<u>TOTAL AERONAUTICS AND SPACE TECHNOLOGY</u>	<u>376,400</u>	<u>427,100</u>	<u>409,500</u>

SPACE TRACKING AND DATA SYSTEMS

<u>TRACKING AND DATA ACQUISITION</u>	<u>299,900</u>	<u>332,400</u>	<u>359,000</u>
Operations.....	249,903	264,500	271,500
Systems implementation.....	40,497	57,300	76,200
Advanced systems.....	9,500	10,600	11,300

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
FISCAL YEAR 1981 CONSTRUCTION OF FACILITIES PROGRAM

BUDGET PLAN
(Thousands of Dollars)

PROJECTS BY INSTALLATION

<u>Ames Research Center</u>	<u>13,180</u>
Construction of Man-Vehicle Systems Research Facility.....	7,480
Modification of Steam Ejector System and Thermal	
Protection Laboratory (N-234).....	2,300
Modification of the Unitary Plan Wind Tunnel (N-227).....	3,400
 <u>Jet Propulsion Laboratory</u>	<u>3,500</u>
Modifications to Various Buildings for Energy Conservation.....	1,500
Modifications to Various Buildings for Seismic Protection.....	2,000
 <u>John F. Kennedy Space Center</u>	<u>760</u>
Rehabilitation of High Temperature Hot Water System, Zone 2, Industrial Area.....	760
 <u>Langley Research Center</u>	<u>22,756</u>
Modifications for Avionics Integration Research Laboratory (1220).....	5,756
Modifications to Aircraft Landing Dynamics Facility (1257).....	15,000
Rehabilitation and Modification of Gas Dynamics Laboratory (1247). .	2,000
 <u>Lewis Research Center</u>	<u>12,355</u>
Decommissioning of Plum Brook Station Reactor Facility.....	3,000
Modifications to Central Air System, Various Buildings.....	7,655
Rehabilitation of Electrical Switchgear, Engine Research Building 5.....	1,700
 <u>Michoud Assembly Facility</u>	<u>4,582</u>
Rehabilitation of Roof, Phase II, Building 103.....	3,800
Rehabilitation of Chilled Water System.....	782
 <u>Various Locations</u>	<u>2,150</u>
Modification of 26-Meter Antenna, DSS-44, Canberra, Australia (JPL).....	1,200
Replacement of Azimuth Radial Bearing, DSS-14, Goldstone, CA (JPL).....	950
 <u>Space Shuttle Facilities at Various Locations as Follows:</u>	<u>10,100</u>
Modification of Manufacturing and Final Assembly Facilities for External Tanks (MAF).....	5,400
Modifications to Solid Rocket Motor Manufacturing and Assembly Facilities, Thiokol Plant, Wasatch, Utah.....	2,700
Minor Shuttle-Unique Projects (Various Locations).....	2,000

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

FISCAL YEAR 1981 CONSTRUCTION OF FACILITIES PROGRAM

BUDGET PLAN
(Thousands of Dollars)

PROJECTS BY INSTALLATION

<u>Space Shuttle Payload Facilities at Various Locations as Follows:</u>	<u>1,617</u>
Rehabilitation and Modification for Payload Ground Support	
Operations (KSC).....	1,617
<u>Repair of Facilities at Various Locations, Not in Excess</u>	
<u>of \$500,000 per Project.....</u>	<u>15,000</u>
<u>Rehabilitation and Modification of Facilities at</u>	
<u>Various Locations, Not in Excess of \$500,000</u>	
<u>per Project.....</u>	<u>20,000</u>
<u>Minor Construction of New Facilities and</u>	
<u>Additions to Existing Facilities at Various</u>	
<u>Locations, Not in Excess of \$250,000 per Project.....</u>	<u>4,000</u>
<u>Facility Planning and Design.....</u>	<u>10,000</u>
<u>TOTAL.....</u>	<u>120,000</u>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RESEARCH AND PROGRAM MANAGEMENT

BUDGET PLAN
(Thousands of Dollars)

<u>INSTALLATION</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>FY 1981</u>
Johnson Space Center.....	152,930	162,881	170,688
Kennedy Space Center.....	123,314	131,861	141,385
Marshall Space Flight Center.....	149,007	157,599	160,377
National Space Technology			
Laboratories.....	4,488	4,899	5,108
Goddard Space Flight Center.....	127,910	135,805	139,335
Wallops Flight Center.....	15,806	17,085	18,977
Ames Research Center.....	62,712	69,801	71,469
Dryden Flight Research Center.....	19,068	21,702	21,681
Langley Research Center.....	106,643	116,040	119,145
Lewis Research Center.....	87,457	97,825	101,360
NASA Headquarters.....	84,473	90,688	97,629
TOTAL.....	<u>933,808</u>	<u>1,006,186</u>^{a/}	<u>1,047,154</u>

a/ Includes proposed supplemental of \$46,286,000 to cover revised salary rates implemented in October 1979.

TOTAL NUMBER OF PERMANENT POSITIONS - END OF YEAR

Johnson Space Center.....	3,504	3,469	3,494
Kennedy Space Center.....	2,193	2,191	2,201
Marshall Space Flight Center.....	3,636	3,561	3,561
National Space Technology			
Laboratories.....	104	103	103
Goddard Space Flight Center.....	3,482	3,440	3,440
Wallops Flight Center.....	398	395	395
Ames Research Center.....	1,666	1,658	1,658
Dryden Flight Research Center.....	480	461	461
Langley Research Center.....	3,005	2,980	2,980
Lewis Research Center.....	2,858	2,835	2,835
NASA Headquarters.....	1,505	1,520	1,585
TOTAL.....	<u>22,831</u>	<u>22,613</u>	<u>22,713</u>